



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/702,469	11/07/2003	Sang Chul Yoon	P23878	8288

7055 7590 07/26/2006

GREENBLUM & BERNSTEIN, P.L.C.
1950 ROLAND CLARKE PLACE
RESTON, VA 20191

EXAMINER

JARRETT, RYAN A

ART UNIT	PAPER NUMBER
----------	--------------

2125

DATE MAILED: 07/26/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/702,469	Applicant(s) YOON ET AL.	
	Examiner Ryan A. Jarrett	Art Unit 2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 May 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments, see pages 8-12 and 13-14, filed 05/08/2006, with respect to the 35 U.S.C. 102(b) rejection of claims 1-5, 7-13, and 15 as being anticipated by Takai et al. US 2002/0029096, and the 35 U.S.C. 103(a) rejection of claims 6 and 14 as being unpatentable over Takai et al. have been considered but are generally moot since the devices 110 and 140-143 of Takai et al. now correspond to the claimed central controller and the remote devices 700-702 of Takai et al. now correspond to the claimed remote controller. This change in the application of the Takai et al. reference is necessitated by the amendment filed 05/08/2006.

Applicant's arguments, see pages 12-13, filed 05/08/2006, with respect to the 35 U.S.C. 102(e) rejection of claims 7 and 8 as being anticipated by Masui et al. US 2003/0140637 have been considered but are generally moot since devices 13 and 10 in Fig. 1 of Masui now correspond to the claimed central controller and device 15 in Fig. 1 of Masui et al. now corresponds to the claimed remote controller. This change in the application of the Maui et al. reference is necessitated by the amendment filed 05/08/2006.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an

international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Takai et al (U.S. Pub 2002/0029096). The claimed invention reads on Takai et al as follows:

Takai et al. discloses (claim 1, 9, 15) a central control system (e.g., Fig. 4) that controls multiple air conditioners (e.g., [0014]-[0015]) including at least one outdoor device (e.g., Fig. 1 #301) and a plurality of indoor devices (e.g., [0026]), comprising:

a central controller (e.g., Fig. 1 #110, 140-143) connected to the multiple air conditioners through a dedicated line (e.g., Fig. 1 #401), for transmitting and receiving signals using an air conditioner communication protocol (e.g., [0028]), to control the multiple air conditioners (e.g., [0027], [0030], [0031], [0049]), the central controller being configured to connect to a remote controller (e.g., Fig. 4 #700-702) via an Internet network (Figure 4), for transmitting and receiving signals using an Ethernet communication protocol (e.g., [0002], [0047]-[0049]) and to receive a control command from the remote controller for the multiple air conditioners (e.g., [0027], [0049]); and

a protocol converter (e.g., Fig. 1 #120, 130, 200-203) physically separate from and locally connected to the central controller, that performs a communication protocol conversion of a signal (e.g., [0047]-[0049]), whereby the control command is transmitted to the multiple air conditioners through the Internet network (e.g., [0027], [0047]-[0049]), wherein the central controller transmits signals to and receives signals from the protocol converter using Ethernet communication protocol (e.g., [0002], [0047]-[0049]) and the protocol converter converts signals between Ethernet communication protocol and the air conditioner communication protocol (e.g., [0002], [0047]-[0049]),

(claim 2, 10) wherein the central controller comprises a key input device that receives a control command associated with the multiple air conditioners (e.g., Fig. 1 #140-143); and

an output device that outputs control conditions of the multiple air conditioners (e.g., Fig. 1 #112),

(claim 3, 11) wherein the central controller comprises: a control program driver that drives a control program accessible by a GUI (Graphic User Interface) for controlling the multiple air conditioners (e.g., [0043]-[0044], [0047]-[0048]),

(claim 4, 12) wherein the central controller comprises a control program transmitter that transmits the control program to the remote controller through an Internet browser in response to a request from the remote controller received through the Internet network (e.g., [0048]-[0049]),

(claim 5, 13) wherein the central controller comprises a signal storage device that stores the control command received through the Internet network (e.g., Fig. 1 #110);

an Internet data storage device that stores data for accessing the Internet network and IP address data (e.g., [0047]-[0049]); and

a controller that controls a flow of signals transmitted and received through the Internet network, and controls the protocol converter to perform a communication protocol conversion of a signal (e.g., Fig. 1 #110, 140-143),

(claim 6, 14) wherein the protocol converter communicates with the central controller via a cable attached at one end to the protocol converter and attached at another end to a serial port of the central controller (e.g., Fig. 1 #400)

(claim 7) a method of operating a central control system for multiple air conditioners (e.g., [0014]-[0015], [0027], [0049]), comprising:

Art Unit: 2125

receiving by a central controller (e.g., Fig. 1 #110, 140-143) a control command for the multiple air conditioners that is transmitted from a remote controller (e.g., Fig. 4 #700-702) over an Internet network (e.g., Fig. 4, [0047]-[0049]);

transmitting, by the central controller (e.g., Fig. 1 #110, 140-143), the control command to a protocol converter (e.g., Fig. 1 #120, 130, 200-203), physically separate from and locally connected to the central controller, using an Ethernet communication protocol (e.g., [0002], [0047]-[0049], EN: *because the command is received with a browser, Ethernet protocol is used/anticipated*);

converting by the protocol converter the received control command into a control command based on an air conditioner communication protocol (e.g., paragraph 28, 29, 31);

transmitting the control command based on the air conditioner communication protocol to the multiple air conditioners (e.g., paragraph 28-31, 40);

performing a control operation of the multiple air conditioners in response to the control command based on the air conditioner communication protocol (e.g., paragraph 26-29, 31, 47-49); and

transmitting data representing control conditions of the multiple air conditioners to the remote controller over the Internet network (e.g., paragraph 47, 48),

(claim 8) further comprising converting the control condition data into control condition data based on an Ethernet communication protocol prior to transmission over the Internet network (e.g., [0002], [0047]-[0049]).

Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

4. Claims 7 and 8 are rejected under 35 U.S.C. 102(e) as being anticipated by Masui et al (U.S. Pub 2003/0140637).

Applicant cannot rely upon the foreign priority papers to overcome this rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

Matsui et al discloses (claim 7) a method of operating a central control system for multiple air conditioners, comprising:

receiving by a central controller (e.g., Fig. 1 #13 and #10) a control command for the multiple air conditioners that is transmitted from a remote controller over an Internet network (e.g., paragraph 134, 141, 148, reference number 13);

transmitting, by the central controller, the control command to a protocol converter (e.g., #6), physically separate from and locally connected to the central controller, using an Ethernet communication protocol (central processing means 10 receives the command via reference number 13 in Ethernet protocol, the command is then sent to the converter 6, therefore an Ethernet communications protocol is used);

converting by the protocol converter the received control command into a control command based on an air conditioner communication protocol (reference number 6, paragraph 143, 148);

transmitting the control command based on the air conditioner communication protocol to the multiple air conditioners (paragraph 143, 148);

performing a control operation of the multiple air conditioners in response to the control command based on the air conditioner communication protocol (paragraph 148); and

transmitting data representing control conditions of the multiple air conditioners to the remote controller over the Internet network (paragraph 149),

(claim 8) further comprising converting the control condition data into control condition data based on an Ethernet communication protocol prior to transmission over the Internet network (reference number 87, figure 16, paragraph 212).

Examiner would like to point out that any reference to specific figures, columns and lines should not be considered limiting in any way, the entire reference is considered to provide disclosure relating to the claimed invention.

Conclusion

5. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan A. Jarrett whose telephone number is (571) 272-3742. The examiner can normally be reached on 10:00-6:30 M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo Picard can be reached on (571) 272-3749. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Ryan A. Jarrett
Examiner
Art Unit 2125

7/12/06
RAJ


ALBERT W. PALADINI
PRIMARY EXAMINER